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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,209	01/14/2004	Samer Kabbani	COHU1180	4869

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EXAMINER

KARLSEN, ERNEST F

ART UNIT PAPER NUMBER

2829

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,209

Applicant(s)

KABBANI ET AL.

Examiner

Ernest F. Karlsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 12-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-11 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

Claims 1-5 and 12-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions and/or species, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement in the reply filed on April 18, 2005.

Claims 6-11 and 27-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The structure of the apparatus of Figures 3-7 is not clear. The use of the term monolithic is not clear. Is the whole device of Figure 4 supposed to be monolithic or is it just the part labeled 104? Are elements 108 part of the monolithic structure? Part 158 of Figure 3 does not seem to be part of element 104 in Figure 3. Is the part of part 104 on which part 158 is located a surface that is part of part 104? As shown in Figure 3, part 158 seems to extend above the top surface of part 104 where part 106 would presumably attach. It is not clear how a seal would be formed between parts 106 and 104. Figure '3 is supposed to be an exploded view. It appears that part 106 might be exploded and flipped 180 degrees. The bracket with no number in the middle of part 106 appears to be on the wrong side of part 106. It appears that part 106 would be separated from part 104 by part 158 and the bracket with no number on part 106 would just make matters worse. The structure of part 158 to provide the desired function is not understood. If part 158 is on a solid surface of part 104 how does the fluid traverse path

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124 of Figure 5? The operation and structure of the claimed heat sink is not understood.

Applicants have argued in their response of July 31, 2006 that one of skill in the art could fill in the gaps in the specification and correct the errors. Such is not found persuasive and the rejection is repeated.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-11 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeHaven et al in view of Burward-Hoy. With regard to claim 6, DeHaven et al show, in Figure 7, a plurality of active temperature control devices (the four units as described in columns 9 and 10) wherein the temperature, hot and cold, is controlled as explained with regard to Figures 5, 6 and 7. The apparatus has a thermal transfer surface 12, Figure 6, and the temperature is controlled for each device under test. DeHaven et al do not show a fluid cooled heat sink thermally coupled to a thermal transfer surface. Burward-Hoy show a heat exchanger wherein flow rate of a fluid is controlled to control temperature in the heat exchanger and the heat exchanger is coupled to a thermal transfer surface as shown in Figures 3 and 4A. It would have been obvious to one of ordinary skill in the art at the time of the invention to have adapted the heat exchange technique of Burward-Hoy to the apparatus of DeHaven et al because

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one skilled in the art would realize that such would result in more accurate and faster control of temperature. With regard to claims 7, 8, 9 and 11, the added limitations are considered inherent in the apparatus resulting from the combination of DeHaven et al and Burward-Hoy. With regard to claim 10, Burward-Hoy describes a resistive reactive heater at column 3, lines 17 plus and Figure 13 shows an inductive heater. With regard to claims 27-30 the combination of DeHaven et al and Burward-Hoy has counter flow and at least part of the heat exchanger is monolithic. DeHaven et al is directed to testing wafers. The abstract of DeHaven et al indicates that one or plural temperature controls may be applied per wafer. In Figure 7, a box 90, 92 contains four of the devices of Figure 6. Presumably, in DeHaven et al's preferred embodiment there would be 16 temperature controls for the setup of Figure 7. Where there is only one control per wafer there would be four temperature controls for the set up of Figure 7. The size of the apparatus of the device of Burward-Hoy is irrelevant.

Applicants have argued that DeHaven et al does not show separately controlled temperature control devices for each device under test. The specification of DeHaven et al is replete with material stating that each device under test can be controlled with separately controlled heating and cooling devices and that both heating and cooling can take place. Column 4, line 27 to column 10, line 46 of DeHaven et al has many instances where the word segment "heat" or the word segment "cool" is present and material is present at these locations that relates to heating and cooling segments of a wafer with independently controlled heating and cooling devices. All of these are of importance with column 8, line 40 to column 10, line 46 having the greatest significance.

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Note also column 6, line 39 to line 67 where it is stated that one segment of a wafer may need heating while another segment may need cooling.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Ernest F. Karlsen at telephone number 571-272-1961.

Ernest F. Karlsen

October 12, 2006

  
ERNEST KARLSEN  
PRIMARY EXAMINER